9:45 a.m.

845-6 **Dexrazoxane Is Cardioprotective Against Doxorubicin Cardiotoxicity**

Steven E. Lipshultz, Nader Rifai, Virginia Dalton, Donna Levy, Stuart R. Lipsitz, Richard D. Gelber, Steven D. Colan, Seema Shaikh, Stephen E. Sallan, For the Dana-Farber Cancer Institute Protocol 95-001 Childhood ALL Consortium Study Investigators, *University of Rochester, Rochester, New York, Dana-Farber Cancer Institute and Children's Hospital, Boston, Massachusetts.*

Background: Doxorubicin (DOX)-related myocardial injury has become a pervasive, persistent, and progressive problem in many survivors of childhood acute lymphoblastic leukemia (ALL).
Methods: A blinded randomized prospective study of dexrazoxane (DEX, Zinecard), a free-radical scavenger, administered at 10 [DEX]:1[DOX] ratio IV 30 min prior to each DOX dose (30 mg/m^2/dose every 3 weeks x 10 doses), was conducted in 150 newly diagnosed pts with ALL at 10 US/Canadian centers from 1995-2001 to determine if DEX was cardioprotective. Acute myocardial injury was measured by elevated (>.01 ng/ml) serum cardiac troponin T (cTnT) levels (Elecsys Troponin T assay).
Results: Children randomized to DEX/DOX (N=74) had 16 cTnT samples (median, range, 1-32, 47.3% with ≥20) with a median cTnT level of 0 ng/ml (range, 0-.161 ng/ml, mean, .0156 ng/ml, SD, .034 ng/ml, total # of elevated cTnT samples, 74/1284 [5.8%]). Children randomized to DOX (N=76) had a median of 14 cTnT samples (range, 1-33, 31.6% with ≥ 20) with a median cTnT level of .01 ng/ml (range, 0-.194 ng/ml, mean, .0211 ng/ml, SD, .037 ng/ml, total # of elevated cTnT samples, 138/1148 [12%]). There were no significant differences (P=1.0) in the % of cTnT elevations before DOX in pts randomized to DEX/DOX (6/55 pts) and the pts randomized to DOX alone (6/48 pts). The DEX/DOX pts had a significantly lower % of pts with cTnT elevations than the DOX pts (DEX/DOX=17/74 pts [23%] vs. DOX=34/75 pts [45.3%], P=.0056, the % of pts with cTnT elevations after DOX therapy has ended (DEX/DOX=4/30 pts [13.3%] vs. DOX=13/34 pts [38.2%], P=.043), the % of pts with ≥1 elevated cTnT sample (DEX/DOX=18/74 pts [24.3%] vs. DOX 36/76 pts [47.4%], P=.0039, the percentage of pts with ≥ 1 sample with higher elevation of cTnT (>.025 ng/ml) (DOX/DEX=10/74 pts [13.5%] vs. DOX=21/76 [27.6%], P=.0433), and in the percentage of non-infant pts who received ≥60 mg/m^2 of DOX with ≥1 elevated cTnT sample (DEX/DOX=14/65 pts [21.5%] vs. DOX=32/68 pts [47.1%], P=.0033).
Conclusion: Dexrazoxane therapy significantly reduced acute myocardial injury in children receiving DOX. This cardioprotective therapy may be useful in other states of pediatric myocardial injury.

ORAL CONTRIBUTIONS

847 Cardiovascular Care for the Elderly: Are They Different?

Tuesday, March 19, 2002, 8:30 a.m.-10:00 a.m.
Georgia World Congress Center, Room 267W

8:30 a.m.

847-1 **Do AHA Antibiotic Prophylaxis Guidelines for Prevention of Antibiotics Need Revision?**

Jodi Indes, Robert Shapiro, Lori B. Croft, Anthony Squire, Jennifer Pennipede, Samantha Buckley, Martin E. Goldman, *Mt. Sinai Medical Center, New York, New York.*

Background: The American Heart Association (AHA) promulgated guidelines for antibiotic prophylaxis for prevention of endocarditis for pts. The FDA refined the guidelines further to include: valvular stenosis (mitral, aortic or tricuspid), ≥ 2+ (mild/moderate) valvular regurgitation, mitral valve prolapse with at least mild regurgitation, congenital lesions and prosthetic valves. As subjects age their valves may fibrose/calcify and develop stenosis/regurgitation which would qualify them for prophylaxis. However, the use of antibiotics has associated risks such as anaphylaxis, and tachyphylaxis. **Methods:** Thus, to determine the number of older subjects who would qualify for antibiotic prophylaxis, we reviewed 600 echocardiograms performed with the latest echo technology. **Results:** We found that there was a significant increase in the incidence of valve lesions requiring prophylaxis as subjects aged (p<.0001); Greater than 50% of subjects over 60 yr old would require treatment. Whether our findings are due to newer generation, higher resolution echocardiographic systems that can detect more abnormalities than prior systems or the progression of cardiac disease with aging is unclear. **Conclusion:** Indications for antibiotic prophylaxis are found in a majority of pts ≥ 60 yr old. The implications of our study warrant further evaluation of the current guidelines as we witness the "graying" of America.

Age(yrs)	20-40	40-60	60-80	80-100
Total pts	73	190	238	99
Positive	17	61	112	65
% Positive	23%	21%	47%	66%

8:45 a.m.

847-2 **Is Primary Angioplasty Better Than Thrombolytic Therapy in Elderly Patients With Acute Myocardial Infarction? An Insight From the Global Registry of Acute Coronary Events (GRACE)**

Rajendra H. Mehta, Kim A. Eagle, Eva Kline-Rogers, Robert J. Goldberg, Joel M. Gore, Alvaro Avezum, Keith A. Fox, Frederick Spencer, Jeanna Johnson, Immad Sadiq, on behalf of the GRACE Investigators, *University of Michigan Health System, Ann Arbor, Michigan.*

Background Few data exist on the effectiveness of primary percutaneous coronary interventions (PCI) over thrombolytic therapy (TT) in elderly with acute myocardial infarction (AMI) in the era of stents and antithrombotic agents from a community based perspective.
Methods We evaluated data from AMI patients aged ≥65 years (ST-elevation or left bundle branch block on ECG) enrolled in GRACE.
Results A total of 2212 elderly AMI patients were eligible per standard reperfusion therapy criteria. Of these, 253 (11.4%) received primary PCI and 700 (31.7%) TT (median age 74 vs 73 years). Median delay to primary PCI was 121 min (IQR 65, 330 min) and to TT 40 min (IQR 25, 70 min; p<0.001). Primary PCI patients were more likely to have diabetes, prior PCI, prior stroke and Killip class ≥II. Similarly, the newer antithrombotic agents (clopidogrel, ticlopidine, low molecular weight heparins and glycoprotein IIbIIIa antagonists) were used more frequently in primary PCI patients. Hospital complications for primary PCI vs TT were: mortality 8.9% vs 13.4%, p=0.06; re-AMI 1.2% vs 6.1%, p=0.002; major bleeding 6.6% vs 4.4%, p=0.17; and stroke 1.2% vs 2.3%, p=0.29. Odds ratios for primary PCI with reference to patients treated with TT (adjusted for differences in baseline characteristics) are as shown (Table).
Conclusions Primary PCI in elderly AMI patients, in a community setting, is associated with decreased adjusted hospital mortality and reinfarction, but with no difference in the adjusted outcome of stroke or major bleed.

Outcome	Adjusted odds ratio	95% Confidence Interval	P value
Death	0.425	0.239-0.755	0.0035
Reinfarction	0.159	0.189-0.526	0.0026
Stroke	0.698	0.189-2.572	0.5887
Major bleed	1.538	0.779-3.040	0.2151

9:00 a.m.

847-3 **Is Quality of Life Enhanced in Octogenarians Undergoing Coronary Artery Bypass Surgery?**

Paul Kurlansky, Donald B. Williams, Ernest A. Traad, Roger G. Carrillo, John S. Schor, Melinda Zucker, George Ebra, *Miami Heart Research Institute, Miami Beach, Florida, Mount Sinai Medical Center, Miami Beach, Florida.*

Background: Octogenarians comprise the fastest growing segment of our population. With over 40% manifesting some form of cardiovascular disease, coronary bypass surgery (CABG) is increasingly recommended. Does the observed long-term clinical outcome and quality of life (QOL) warrant surgical intervention in this high-risk elderly group?
Methods: Retrospective analysis was conducted on 1000 consecutive patients undergoing CABG from 1982-2000. Follow-up ranged from one month to 19 years (mean=3.6 years). The SF-36 QOL survey was administered to all survivors at the time of last follow-up, which was 97.5% complete.
Results: Mean age was 83.1 (range 80-99). There were 393 (39.3%) women, 893 (89.3%) patients with triple vessel disease, 565 (56.5%) with reduced ejection fraction (EF<50%), 213 (21.3%) who underwent urgent or emergent surgery, and 956 (95.6%) with NYHA Class III or IV symptoms. Hospital mortality was 9.0% (90/1000), with 67.2% (672/1000) free of post-op complications. Actuarial survival for patients discharged from the hospital was 63±1.9% at 5 years and 21.7±2.8% at 10 years. Multivariate predictors of late mortality included a history of congestive heart failure (p=0.002), absence of an internal mammary artery graft (p=0.002), prolonged perfusion time (p=0.050), renal dysfunction (p=0.001), peripheral vascular disease (p=0.011) and three vessel disease (p=0.016). At follow-up, 89.2% (445/499) were angina free, and 98.2% (490/499) were free of major adverse cardiac events. The SF-36 revealed scores equal to or better than age-matched controls in seven of eight health scales measured. Study group and controls were similar in both physical (38.8±10.9 vs. 38.0±11.2; p=0.173) and mental (50.9±10.4 vs. 50.4±11.7; p=0.280) health summary scores. Similar or improved health status compared with one year previously was reported by 77.8% (382/491) of patients.
Conclusion: CABG surgery in octogenarians has a favorable perioperative and long-term clinical outcome. Despite the higher risks and shorter longevity of this group, both clinical and patient-perceived QOL are excellent, and justify surgical intervention.